p-ISSN : 2685-9106
e-ISSN : 2686-0384
ADI International Conference Series

Technology Acceptance Model (TAM) Approach in the Financial Services Platform for Msme Sector

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To cite this document :
Natu Prihanto, Y. J. (2021). Technology Acceptance Model (TAM) Approach in the Financial Services Platform for Msme Sector. Conference Series, 3(1), 385-397. Retrieved from https://adi-journal.org/index.php/conferenceseries/article/view/375

Abstract

This report aims to explore the determinants of Indonesia's financial service industry. Trust element is the qualitative component of financial technology implementation. According to the Technology Adoption Model (TAM), action is determined by the decision to use a given device, which in turn is determined by the expected utility and ease of usage of the method. Study models and questionnaires were planned and administered to 175 small and medium business owners in Bogor, West Java, Indonesia. A Structural Equation Model (SEM) study was used. Results found that the dimensions of vector confidence (benevolence, honesty, reputation, problem-solving orientation) have a major impact on the decision to use financial technology explicitly and indirectly by perceived utility, perceived user-friendliness, and financial technology attitude. The managerial consequences of this study are that Indonesia's financial services industry leaders should recognize the impact of technology adoption actions not only by improving perceived user-friendliness and utility, but also by fostering honesty, reputation, benevolence, and problem-solving orientation

Keywords: Trust, financial service, financial technology, TAM.

I. INTRODUCTION

Today's market background forces companies , particularly small and medium-sized enterprises (SMEs), to be creative, periodically evaluate their methods, adapt their approach to their evolving environment[1] and keep close eye on their performance[2]. The study aim is to understand how the Indonesian financial service industry builds trust with individual consumers, a significant topic that encourages customer-supplier business relationships. In this report, we use owners of small and medium-sized businesses in the Bogor area as consumer participation to capture experiences and knowledge sharing between consumer and financial services industry while addressing product portfolio and service content.

This research utilizes confidence to determine a customer's degree of trust after financial institution initial contact[3]. Trust is foundational in customer-supplier partnerships as part of social capital, therefore, trust is a primary source of partnership worth. For consumers, faith occurs as part of their properties by co-created value[4]. Trust offers a foundation for establishing trust: handling partnerships, risk, opportunities and other business processes. The analytical perspective conflicts with the neoclassical perception that confidence must be understood and is thus cognitive and calculative. Confidence is mostly automatic, utilizing experiential and psycho-motor learning[4]. Confidence relates to the scope and certainty of feelings based on inconclusive facts, and is a core element of the exchange relationship[5].

The Technology Acceptance Model (TAM)[6] seems to be the most generally agreed among IS researchers. According to the TAM, adoption activity is defined by the decision to use a specific method, which is defined by the perceived utility and perceived ease of usage of the system. While IT researchers researched and repeated the TAM and agreed to its validity in forecasting the individual's acceptance to different corporate information technology, the fundamental constructs of the TAM do not completely reflect the particular influences of technical and usage-context considerations that alter consumer acceptance[7]. This research explores and discusses a theoretical model incorporating confidence factors in TAM to include a more detailed model of acceptance of financial service.

2 LITERATURE REVIEW and RESEARCH HYPOTHESIS

A. Trust

Provided faith as the core determinant of partnerships, one perceives the other party as trustworthy. It's a volitional weakness that influences a person to agree

to certain interaction[8]. McKnight et al. (1998)[9] suggest that customers go through phases of confidence in determining whether or not to explore an online enterprise. Confidence is at the core of partnerships of all sorts, it is an essential catalyst in many transactional relationships, and it decides the essence of many businesses[10]. In the sense of the financial services sector, the position of technology confidence and internet confidence has also been recognized[11]. People will overcome their doubt about other people's motivations, goals, and prospective behavior with better confidence[12]. Confidence has a vital impact on users' ability to participate in online money sharing and confidential personal information[13]. A technology acceptance model with more social dimensions must include confidence, particularly when relationships include social instability and risk, as in internet banking[14]. Pavlou (2003)[15] notes trust drives intentions by optimistic mindset. Alsajjan and Dennis (2010)[16] consider that confidence has a beneficial impact on users' perceived utility and attitude towards embracing internet banking. Thus, faith impacts personal expectations regarding the user-friendliness and utility of the financial services industry and determines mindset towards the usage of the financial services industry , which in turn contributes to behavioural intent to use the financial services industry. And it's hypothesized:

H1. Trust has a positive effect on perceived usefulness.
H2. Trust has a positive effect on perceived ease of use.

B. Technology Acceptance Model (TAM)

Davis(1986) built the TAM model[17]. It's an extension of Reasonable Behavior Theory (TRA), precisely adapted to model IS consumer adoption. TAM 's aim is to include an overview of general machine adoption determinants, capable of illustrating consumer activity through a diverse variety of end-user software applications and user populations. Specifically, TAM is focused on two particular values, perceived utility and perceived user-friendliness as the key antecedents of machine acceptance. TAM believes that machine usage is dictated by behavioral intent to use, and perceived utility influences behavioral intent to use. Davis (1989)[17] showed that perceived utility and user-friendliness exert a heavy effect on behavioral intent. Perceived utility is the main factor that specifically influences behavioral purpose, defines a significant proportion of mood, and mediates the

impact of perceived user-friendliness on behavioral intent[18]. And it's hypothesized:

H3. Perceived ease of use has a positive effect on attitude use of the internet.
H4. Trust has a positive effect on attitude use of the internet.
H5. Perceived ease of use usefulness has a positive effect on attitude use of internet
H6. Attitude use of internet has a positive effect on internet intention to use

II. METHOD

Small and medium-sized enterprises (SMEs) in Bogor, West Java, using a descriptive and insightful survey approach of unit study. Collecting data in a cross-sectional time frame. According to Biro Pusat Statistik 2018, the micro-business population in the Bogor area is 689,101 units, small business 41,341 units, medium business 5,993 and large business 1,339. Using non-probability sampling methodology to collect representative results. Research respondents were members of small and medium-sized businesses (SMEs) in Bogor.

Data was collected by distributing questionnaires directly to 175 owners of SMEs in the Bogor area. In this analysis, the metrics included in the questionnaire were indexed using previous Scopus studies and a five-point Likert scale. Analyzed the data using AMOS Structural Equation Simulation. According to Ghozali (2012)[19], AMOS Structural Equation Modeling Analysis is a powerful tool because it can be applied to any data scale (nominal, ordinal, interval , and ratio) form. Outlier checking is performed to see which data deviation, missed meaning review to see whether data is missing or incomplete. Outliers and incomplete details show both metrics and dimensions.

A research design was built by modifying pre-analysis measures to ensure scale material validity[20].

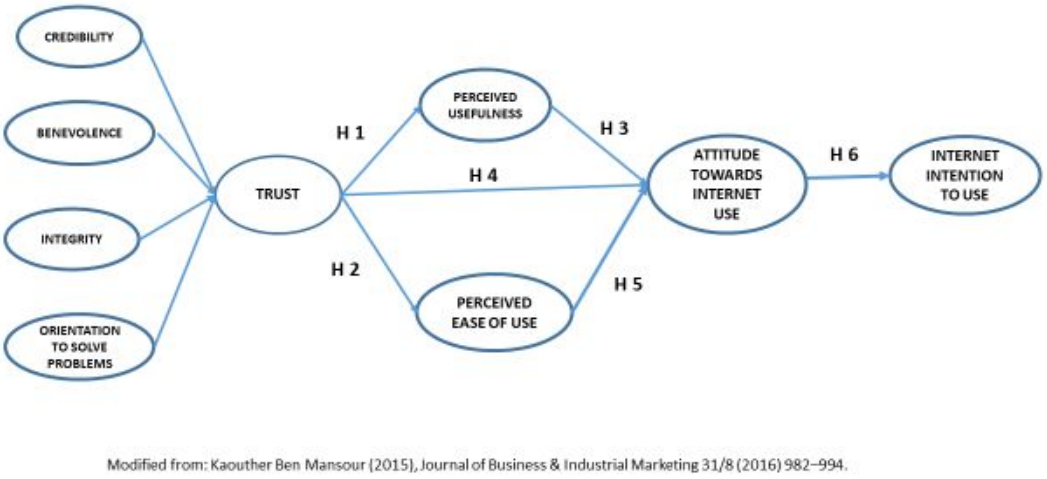

Figure 1. : Research Model.

A. Data analysis

- Analysis of Measurement Model

  This thesis used Structural Equation Model (SEM) to evaluate research results. Due to its ability, SEM was ideal for evaluating the research hypothesis to calculate latent variables and assess the causal association between variables. The program used was AMOS 23.Validity checking was done to see how well the indicator would calculate a construct, thus evaluating reliability to see the accuracy of variables in measuring latent build. According to Ghozali (2012) (20), a vector is said to have strong latent validity if: (1) loading factor (π) = 0.5, (2) T-Statistics>1.96. Results indicate that each indicator used in this analysis is accurate, since it satisfies the criteria.

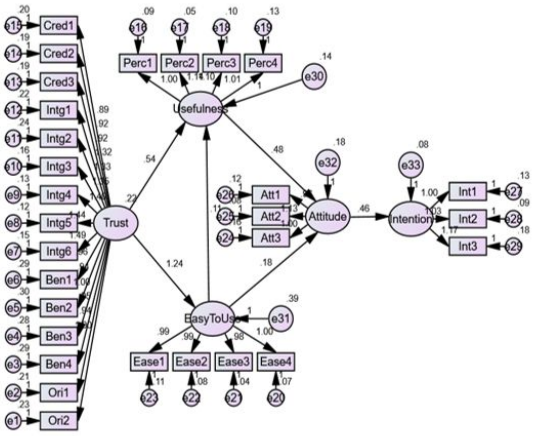

Figure 2. Analysis of Measurement Model

Figure 2 is a measurement model of 175 respondents that have been screened. Validity and reliability testing had been done using AMOS version 23 software. The result showed that all indicators are valid because they met the requirement. According to Hair et al., (2010) [21] a variable is valid if the standardized loading factor ≥ 0.50. And the reliability test, using the criteria for the value of AVE ≥ 0.50 and CR ≥ 0.70.

Table 1 Validity Test

			Estimate
Ori2	<---	Trust	.679
Ori1	<---	Trust	.651
Ben4	<---	Trust	.687
Ben3	<---	Trust	.702
Ben2	<---	Trust	.673
Ben1	<---	Trust	.646
Intg6	<---	Trust	.913
Intg5	<---	Trust	.943
Intg4	<---	Trust	.887
Intg3	<---	Trust	.866
Intg2	<---	Trust	.775
Intg1	<---	Trust	.779
Cred3	<---	Trust	.656
Cred2	<---	Trust	.681
Cred1	<---	Trust	.654
Perc1	<---	Usefulness	.831
Perc2	<---	Usefulness	.898
Perc3	<---	Usefulness	.869
Perc4	<---	Usefulness	.805
Ease4	<---	EasyToUse	.945
Ease3	<---	EasyToUse	.944
Ease2	<---	EasyToUse	.975
Ease1	<---	EasyToUse	.936
Att3	<---	Attitude	.806
Att2	<---	Attitude	.913
Att1	<---	Attitude	.830
Int1	<---	Intention	.698
Int2	<---	Intention	.807
Int3	<---	Intention	.727

Table 2 Reliability Test

Construct Reliability

	Construct Loading	mesurement error	Construct Reliability
Trust	11.192	6.491	0.951
Perceived Usefulness	3.403	1.100	0.913
Perceived Easy To Use	3.800	0.389	0.974
Attitude	2.549	0.828	0.887
Intention	2.232	1.333	0.789

Variance Extracted

	Standar Loading Kuadrat	mesurement error	VE Construct
Trust	8.509	6.491	0.567
Perceived Usefulness	2.900	1.100	0.725
Perceived Easy To Use	3.611	0.389	0.903
Attitude	2.172	0.828	0.724
Intention	1.667	1.333	0.556

Validity Discriminant

	VE Construct	AVE
Trust	0.567	0.753
Perceived Usefulness	0.725	0.851
Perceived Easy To Use	0.903	0.950
Attitude	0.724	0.851
Intention	0.556	0.745

B. Analysis of Structural Model

Structural model research was performed to evaluate the connection between constructs in the proposed model and then determine the course of significant paths between constructs. The structural model 's overall fit was adequate, with all applicable fit indices above 0.90. GFI is 0.820; AGFI is 0.747; TLI is 0.937. The structural path study outcome shows the structural path of the construct. Five of the models are relevant statistically at 0.05 amount. After the outcome of structural route analysis matched with the hypothesis, six hypotheses (H1 , H2 , H3, H4, H5, and H6) were endorsed.

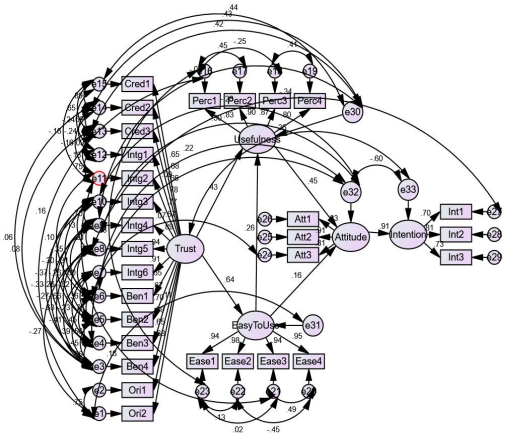

Figure 3 Structural Model

Table 3 Goodness Of Fit Index

Goodness of fit Index	Cut of value	Result	Criteria
CMIN/DF	≤ 2,0	1,945	Good Fit
GFI	≥ 9,0	0,820	Marginal
AGFI	≥ 9,0	0,747	Marginal
TLI	≥ 9,5	0,937	Good Fit
CFI	≥ 9,5	0,952	Good Fit
RMSEA	≤ 0,80	0,074	Good Fit

Table 4 Hypothesis Test Result

			Estimate	S.E.	C.R.	P	Label
EasyToUse	<---	Trust	1.219	.146	8.340	***	
Usefulness	<---	Trust	.468	.097	4.812	***	
Usefulness	<---	EasyToUse	.149	.045	3.333	***	
Attitude	<---	EasyToUse	.102	.040	2.528	.011	
Attitude	<---	Usefulness	.497	.086	5.758	***	
Intention	<---	Attitude	.600	.106	5.660	***	
Ori2	<---	Trust	1.000				
Ori1	<---	Trust	.934	.056	16.558	***	
Ben4	<---	Trust	1.028	.125	8.211	***	
Ben3	<---	Trust	1.071	.127	8.443	***	
Ben2	<---	Trust	1.001	.123	8.148	***	
Ben1	<---	Trust	.973	.120	8.074	***	
Intg6	<---	Trust	1.640	.146	11.258	***	
Intg5	<---	Trust	1.612	.151	10.646	***	
Intg4	<---	Trust	1.489	.137	10.835	***	
Intg3	<---	Trust	1.452	.137	10.590	***	
Intg2	<---	Trust	1.367	.139	9.805	***	
Intg1	<---	Trust	1.359	.138	9.828	***	
Cred3	<---	Trust	.900	.107	8.392	***	
Cred2	<---	Trust	.930	.107	8.701	***	
Cred1	<---	Trust	.892	.106	8.378	***	
Perc1	<---	Usefulness	1.000				
Perc2	<---	Usefulness	1.120	.058	19.263	***	
Perc3	<---	Usefulness	1.127	.099	11.382	***	
Perc4	<---	Usefulness	1.007	.091	11.082	***	
Ease4	<---	EasyToUse	1.000				
Ease3	<---	EasyToUse	.968	.031	31.251	***	
Ease2	<---	EasyToUse	1.030	.049	20.888	***	
Ease1	<---	EasyToUse	1.011	.054	18.570	***	
Att3	<---	Attitude	1.000				
Att2	<---	Attitude	1.146	.086	13.352	***	
Att1	<---	Attitude	.974	.080	12.242	***	
Int1	<---	Intention	1.000				
Int2	<---	Intention	1.107	.121	9.158	***	
Int3	<---	Intention	1.255	.148	8.458	***	

The confidence element influences TAM structures. Credibility, benevolence, problem-solving orientation, and honesty have a major effect on perceived utility, perceived user-friendliness, attitude towards internet usage, and internet purpose. H1: Confidence influences presumed utility. Significance value on trust 's effect on perceived usefulness is 0.000 or (* * *) such that the sense value is lower than 0.01 and it may be inferred that trust 's influence on perceived usefulness may be viewed with 99 percent

trust. The average worth is 0.468, implying a favorable impact indicates the greater the confidence the expected utility would also be. H2: Trust 's impact on ease-of-use. The meaning value of trust effect on perceived easy to use is 0.000 or (* * *) such that the meaning value is lower than 0.01 and it can be inferred that with a belief level of 99 percent, it can be interpreted that trust affects perceived ease. The average meaning of 1,219 which implies optimistic impact means that the higher the confidence, the higher the perceived user-friendly would be. H3: The perceived impact on perceived utility. The meaning value on the impact of perceived easy to use on perceived usefulness is 0.000 or (* * *) such that the meaning value is lower than 0.01 and it may be inferred that the perceived easy to use effect on perceived usefulness may be viewed with a 99% trust level. The estimated meaning of 0.149, which implies a favorable impact, means that the higher perceived user-friendliness would also increase. H4: The perceived attitude-friendly influence. The meaning value on the impact of perceived ease of use on attitude is 0.011 such that the meaning value is lower than 0.05 and it can be inferred that an impact of perceived ease to use on attitude can be viewed with a 95% trust level. The average meaning is 0.102, which implies a favorable impact implies that the higher perceived user-friendly personality would also be higher. H5: Attitude Perceived Usefulness Effect. Significance significance on the impact of perceived usefulness on attitude is 0.000 or (* * *) such that the sense value is lower than 0.01 and it may be inferred that the effect of perceived usefulness on attitude may be viewed with 99 percent trust. The average meaning is 0.497, which implies the higher expected utility implies the better mindset. H6: Attitude impact on purpose. Significance significance on the influence of attitude on intention is 0,000 or (* * *) because the sense value is lower than 0.01 and it can be inferred that with a trust level of 99 percent it can be perceived that attitude influences intention. The estimated value is 0.600, indicating positive impact implies better mood, better purpose. We infer that H1, H2 H3, H4, H5 and H6 are supported.

III. DISCUSSION

Confidence dimensions, honesty, benevolence, problem solving orientation, and competence have a direct effect on internet intention to use by perceived utility and perceived user-friendliness to implement the internet in the financial service industry. Reid and Levy (2008)[22] showed a clear confidence impact on TAM 's perceptual variables. Internet usage in the financial services industry is entirely voluntary and that the target consumer community consists of conscientious companies of diversified backgrounds, the

results of this study indicate that to draw more internet users in the financial services industry, it would not be enough to render the framework convenient to communicate with and useful.

These findings offer useful lessons for financial services sector administrators who should be conscious of the value of diverse views regarding perceptions of consumers. Managers should suggest shaping Internet actions not only by cultivating user-friendliness and usefulness values, but also by fostering reputation, benevolence, problem-solving orientation and honesty. They can, of course, develop informative applications for future adopters to include open Internet financial services industry portals, simple page updates, fast checkout times, convenient applications, a broad range of financial products / services customized to particular market demands, customer-friendly platform to regular usage rewards for active customers. Practitioners should also pay special attention to preventing internet users from experiencing access difficulties, device failures, dropouts, service delays and system malfunctions which ultimately decrease their trust.

As safety and protection are of greater importance to consumers whilst the financial services sector is online, administrators can also aim to attract consumers by reflecting on and communicating the credibility of the financial services industry and demonstrate how the financial services industry has ensured data confidentiality and security. The financial services industry should strive to create a stable and inventive image and receive endorsements and good word-of - mouth that should boost the understanding of the trustworthiness of the financial services industry and increase the understanding of prospective users of the website's usefulness.

The analysis also shows that the belief – attitude – intention – use stream is still successful in forecasting the conduct of the business' internet financial services industry. Results suggest that perceived user-friendliness has a major impact on perceived utility and attitude towards Internet use. Perceived utility defines mindset and purpose to use internet banking. This is compatible with results from previous research in which the action and attitude of purpose of consumers depends on their assessment of technology benefits[23].

IV. CONCLUSION

A multidimensional confidence variable (benevolence, honesty, reputation, problem-solving orientation) was suggested to substantially affect the decision to use internet banking explicitly and indirectly by perceived utility, perceived ease of usage, and attitude towards internet use in the financial services industry.

This study's benefits to financial services sector executives are twofold. Second, the confidence variable was found to be a significant determinant of perceived utility, attitude towards internet access and plan to use the internet. Second, it implemented the expanded TAM in a new knowledge sense. Users' belief that e-transactions are simple and controllable is important for the acceptance of the financial services sector, as simplicity of usage and faith build expectations of controllability and usability.

This scientific analysis has limits. Second, the research results and conclusions are drawn from a single study that explored a specific technology background and addressed a specific consumer audience. Second, this review took a snapshot analysis approach. This reduces this study's potential to represent temporal shifts in research constructs, particularly as internet use of financial services industry experiences increases.

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